

Work Order ID 70120

Friday, May 27, 2011 10:33:52 AM

Page 1

Item ID: D4308-042

Accept

Setup Start

Revision ID:

Stop

Item Name: Step, RH Crew

Start Date: 6/2/2011 Start Qty: 2.00

Cust Item ID:

Required Date: 6/2/2011 Req'd Qty: 2.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4308	A								
100	Large Fab	0.00				2	0		
Large Fab	Memo	0.00							
Large Fab	1-Cut D4308-1 using D2622 extrusion as per Dwg D4308 2-Drill, c'sink one hole on top of step as per dwg 3-Deburr-and bevel ends for welding								
110	QC6- Inspect dimensions to drawing	0.00							
QC	Memo	0.00							
Quality Control									
120	Weld per dwg A/R Aluminum rod Batch: 114703 Large Fab	0.00				2	0		
Large Fab	Memo	0.00							
Large Fab	1-Weld end cap (ONE END ONLY) 2-Grind end cap welds flush 3-weld lugs as per Dwg D4308								

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

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Page 2

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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

2 0 BEU/05/31

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/11/31

(x2)
R17

150

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

x2 RH 0 21 11/05/31

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 3

Item ID: D4308-042

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Start Date: 6/2/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 6/2/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				2	0	11-537	
170 Large Fab Large Fab	Weld per dwg A/R Aluminum rod Batch: 114703 Large Fab Memo 1-Inspect for foreign object per QSI 024 2-Weld Remaining end cap as per Dwg D4308 3-Grind end cap weld flush as per dwg D2841 4- install rivert as per dwg	0.00 0.00				2	0		11-06-01
180 QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00				2	0		

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries



Work Order ID 70120




Friday, May 27, 2011 10:33:52 AM



Page 4


Item ID: D4308-042 Accept  Setup Start 
Revision ID: Stop 
Item Name: Step, RH Crew
Start Date: 6/2/2011 Start Qty: 2.00  Cust Item ID:
Required Date: 6/2/2011 Req'd Qty: 2.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				<i>2</i> <i>RH</i>			
200  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				<i>2X</i> <i>RH</i>	<i>11/06/01</i>		
210  SprayPaint Spray Painting	Spray Painting per QSI005 4.2 Memo ***BLUE***	0.00 0.00				<i>25</i>	<i>11 06 02</i>	<i>(2)</i>	

primer 117319
paint 115985
clean 117101

PTO

W/O: 70120		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11-06-03	211	QC14 Permanent Change		AB	11-06-03	2	AB Chief Eng	AB 11-06-03 QC Inspector
							 11-06-03	

Part No: D4308-042 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 70120

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Item ID:	D4308-042	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Step, RH Crew					
Start Date:	6/2/2011	Start Qty:	2.00		Cust Item ID:	
Required Date:	6/2/2011	Req'd Qty:	2.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
215	Wing Walk as per dwg QSI005 4.4 Batch <u>117803</u>								
	HandFinish	0.00				<u>2</u>	<u>BL</u>	<u>11-6-6</u>	
	Hand Finishing								
220	QC3- Inspect Part Finish	0.00							
	QC	0.00				<u>2</u>	<u>g</u>	<u>11/06/100</u>	
	Quality Control								
230	Identify as per dwg & Stock Location <u>423</u>	0.00							
	Packaging	0.00							
	Packaging								

11/6/7 (20) Sp

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
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NOTE: Date & initial all entries

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Friday, May 27, 2011 10:33:52 AM



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Accept



Setup Start



Revision ID:

Stop



Item Name: Step, RH Crew

Start Date: 6/2/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 6/2/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/07

C211106107

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Picklist Print

Friday, May 27, 2011 10:34:16 AM

Page 1

Work Order ID: 70120

Parent Item: D4308-042

Parent Item Name: Step, RH Crew

Start Date: 6/2/2011

Required Date: 6/2/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 11.01.07 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured No

Each

64.0000

0.1



Step Extrusion

11.05.28

Location

Loc Qty

Loc Code

HALL

6

64409

6

WA

58

46910

2

66970

56

0.1

D2734

Manufactured No

120

Each

68.0000

1

2



Step End Plate

11.05.30

Location

Loc Qty

Loc Code

WA

45

69537

45

WA015

23

66143

23

2

D3458-1

Manufactured No

120

Each

31.0000

1

2



Step Mounting Plate

11.05.30

Location

Loc Qty

Loc Code

WA018

31

63075

31

2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

Friday, May 27, 2011 10:34:16 AM

Page 2

Work Order ID: 70120

Parent Item: D4308-042

Parent Item Name: Step, RH Crew

Start Date: 6/2/2011

Required Date: 6/2/2011

Start Qty: 2.00

Required Qty: 2.00

D3458-3

Manufactured No

120 Each

38.0000

1 2



Step Mounting Plate



11.05.30

Location

Loc Qty

Loc Code

WA018

38

63076

38

2

D2734

Manufactured No

170 Each

68.0000

1 2



Step End Plate



11.06.01

Location

Loc Qty

Loc Code

WA

45

69537

45

WA015

23

66143

23

2

M520601A8402

M114945

2 11.05.28

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

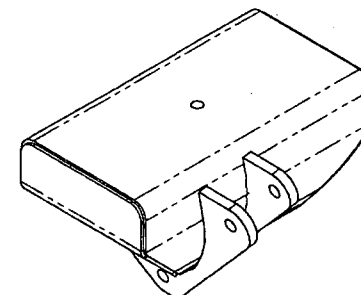
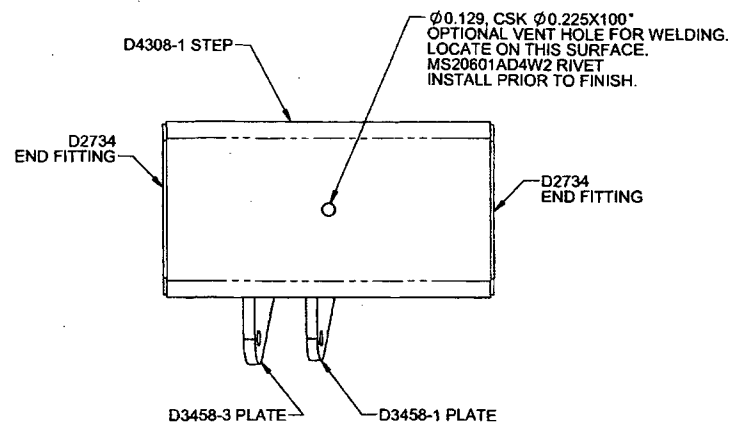
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

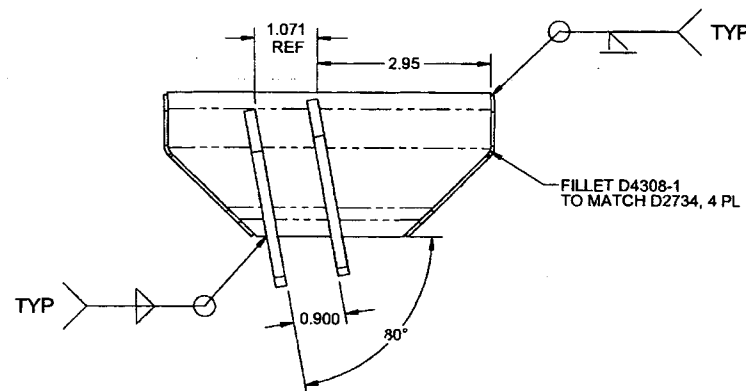
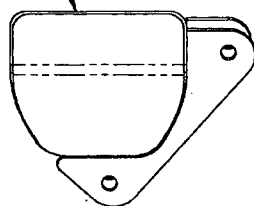
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4308-041	STEP, LH CREW
2	1	D4308-1	STEP
3	2	D2734	END PLATE
4	1	D3458-1	PLATE
5	1	D3458-3	PLATE
6	1	MS20601AD4W2	RIVET (OPTIONAL)



2 APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS



D4308-041 STEP, LH CREW

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N & B/N PER DART QSI 044 6.6 (REMOVABLE TAG)
- 7) WEIGHT: 0.47 lb
- 8) WELDING: PER DART QSI 004

RELEASED
2011-05-26
JWP

A	NEW ISSUE	CP	10.12.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.12.17		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4308** REV. A
SHEET 1 OF 3
TITLE **STEP, CREW** SCALE NTS

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

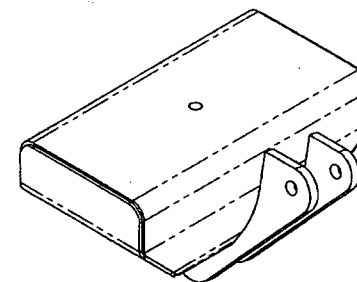
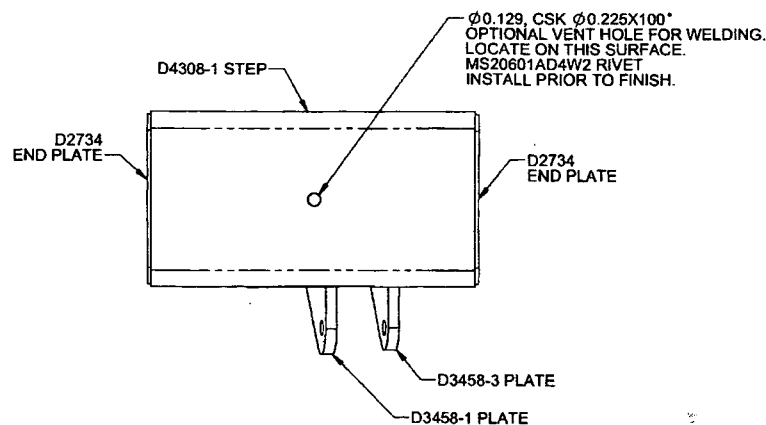
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

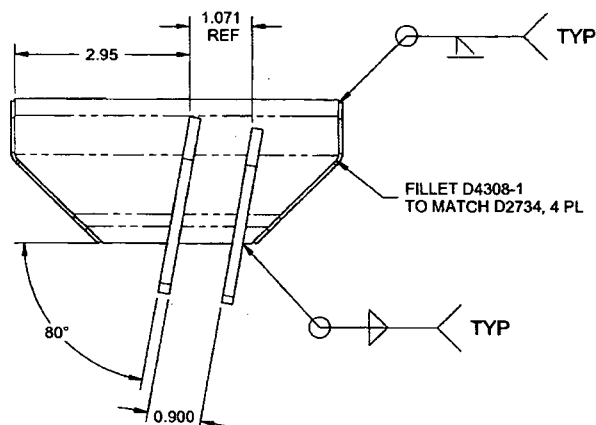
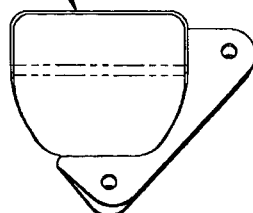
NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY -042	P/N	DESCRIPTION
1	X	D4308-042	STEP, RH CREW
2	1	D4308-1	STEP
3	2	D2734	END PLATE
4	1	D3458-1	PLATE
5	1	D3458-3	PLATE
6	1	MS20601AD4W2	RIVET (OPTIONAL)



2 APPLY BLACK
ANTI-SKID ON TOP
SURFACE TO BOTTOM
OF TOP RADIUS



D4308-042 STEP, RH CREW

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: P/N & B/N PER DART QSI 044 6.6 (REMOVABLE TAG)
- 7) WEIGHT: 0.47 lbs
- 8) WELDING: PER DART QSI 004

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D4308	REV. A
MFG. APPR.		TITLE	SHEET 2 OF 3
APPROVED		STEP, CREW	SCALE
DE APPR.			NTS
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RELEASED
2011-05-24
JMP

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

8

7

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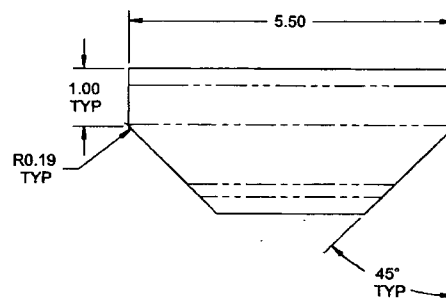
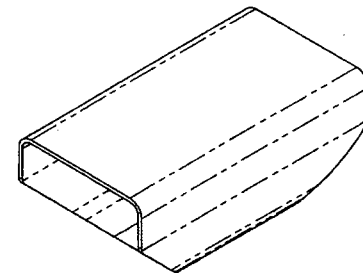
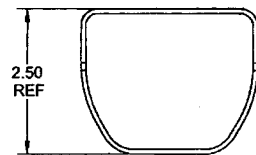
1

D

C

B

A

**D4308-1 STEP**

RELEASED
2011-05-20
JMD

NOTES:

- 1) MATERIAL: MAKE FROM D2622 EXTRUSION
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4308	SHEET 3 OF 3
APPROVED		TITLE	SCALE
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8

7

6

5

4

3

2

1

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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